

Amendments to the Claims:

Please amend Claims 1 – 8 as indicated in the following listing of claims, which replaces all prior versions and listings of claims.

- 1 1. (Currently Amended) An unwinding system for handling reels of tissue comprising:
~~, of the type of those whereby~~ for each ply of laminar tissue to be applied, ~~use is~~
~~made of~~ a pair of reels (~~25 and 32~~), of which one supplies ~~the a~~ laminar web to be applied,
whilst the other is placed on stand-by to be spliced onto ~~the an~~ infeed line when the supply reel
is spent, characterised in that wherein:
the ~~two~~ pair of reels (~~25 and 32~~) of the unwinding unit are mounted in ~~their~~
respective reel-carrier assemblies (~~1 and 2~~) which are capable of vertical displacement, with one
reel being located on ~~the an~~ upper part and the other on ~~the a~~ lower part at a distance between
them that enables the reel in stand-by to be prepared whilst the other reel is in ~~the an~~ operating
mode;
~~in that~~ each reel is mounted between ~~their~~ respective holding cones (~~7 and 8~~), by
~~means of which~~ that control unwinding rotation ~~is controlled~~, with said cones (~~7 and 8~~) also
being capable of being moved closer together or further apart for ~~the~~ loading and unloading of
the corresponding reel; and
~~in that the a~~ reel-carrier from which ~~the one of the~~ reels is removed is displaced
vertically until it occupies the upper position~~part~~, whilst ~~the a~~ reel-carrier that holds ~~the a~~ fresh
reel that is coming into operation drops to a lower position, freeing the upper part for ~~the~~
incorporation of a new reel in the reel-carrier that has become unoccupied.
- 2 2. (Currently Amended) An unwinding system for handling reels of tissue, ~~all in accordance~~
~~with as recited in~~ claim 1, characterised in that wherein for ~~the~~ application of two laminar plies
of tissue two symmetrical unwinding units are arranged, each ~~one of them consisting of their~~
unwinding unit comprising respective reel-carrier assemblies (~~1 and 2~~) capable of being

5 displaced vertically and fitted with cones (7 and 8) for holding the corresponding reels (25 and
6 32).

1 3. (Currently Amended) An unwinding system for handling reels of tissue, ~~all in accordance~~
2 ~~with as recited in claims 1 and 2, characterised in that each unwinding unit includes further~~
3 ~~comprising a splicing mechanism for the automatic splicing of the laminar web on the reel (25)~~
4 ~~in stand-by with the web on the reel in operation (32) when the latter is spent, with said~~
5 ~~mechanism consisting of comprising a fixed bar (12), a moving bar (13) operated by pneumatic~~
6 ~~cylinders that is capable of being displaced towards the fixed bar (12) and another moving bar~~
7 ~~(15) operated by a chain and pinion system that is capable of displacement between a position of~~
8 ~~operation on it and a position of insertion between the fixed bar (12) and the moving bar (13) to~~
9 ~~be grasped between them, with said other moving bar (15) incorporating a clamp (29), by means~~
10 ~~of which the such that a leading edge (28) of the laminar web that is in the stand-by position~~
11 may be taken up.

1 4. (Currently Amended) An unwinding system for handling reels of tissue, ~~all in accordance~~
2 ~~with as recited in claim 3, characterised in that wherein the splicing mechanism consists of~~
3 ~~comprises an automatic cutting system (45) which is fitted with a blade (46) capable of~~
4 ~~displacement by pneumatic action to a position resting on the web (41) of the reel (32) in~~
5 ~~operation that is running out, in conjunction with a change in the direction of rotation of said~~
6 ~~reel (32) in operation that causes a tug on the web (41), which thus effectively leads to the a~~
7 ~~cutting of said web (41) subsequent to the a splicing of the fresh web (4) which is to continue~~
8 ~~the supply; with the blade (46) being envisaged in the shape of a comb, to facilitate the incision~~
9 ~~on the web (41) to be cut.~~

1 5. (Currently Amended) An unwinding system for handling reels of tissue, ~~all in accordance~~
2 ~~with as recited in claims 1 to 3, characterised in that at the further comprising an outlet of~~
3 ~~each unwinding unit there is having a mechanism comprising two fixed rollers (16 and 17) and~~
4 ~~a moving roller (18) capable of vertical displacement and controlled by a synchronisation~~
5 ~~synchronization device (20), with said mechanism consisting of comprising a rocker arm for~~

6 tension in ~~the~~ a supply line and a magazine for ~~the~~ the passage of ~~the~~ the corresponding web for ~~the~~ the
7 continuity of the supply during splicing.

1 6. (Currently Amended) An unwinding system for handling reels of tissue, ~~all in accordance~~
2 ~~with as recited in claim 1, characterised in that wherein~~ inserted into each reel to be mounted
3 on the unwinding device there are bushings (21) that are fitted into ~~the~~ the ends of ~~the~~ a mandrel of
4 each corresponding reel, with said bushings (21) featuring lateral windows (22), to act as sockets
5 for expansion keys (23) on the cones (7 and 8) for holding the reel in the assembly, which are
6 inserted into said bushings (21), establishing a rotary connection for ~~the~~ the operation of the
7 corresponding reel by means of said insertion of the keys (23) into the windows (22) on the
8 aforementioned bushings.

1 7. (Currently Amended) An unwinding system for handling reels of tissue, ~~all in accordance~~
2 ~~with as recited in claim 6, characterised in that wherein~~ the bushings (21) feature comprise a
3 groove that remains on ~~the~~ an outside of the reel to be incorporated, for its attachment ~~by means~~
4 ~~of with~~ said groove onto devices for lifting the reel into position on the assembly, the ~~said~~
5 groove having positioning contours to adapt to the lifting device so that the bushings (21) are
6 positioned to ensure that the keys (23) on the holding cones (7 and 8) fit into the windows (22).

1 8. (Currently Amended) An unwinding system for handling reels of tissue, ~~all in accordance~~
2 ~~with as recited in claim 1, characterised in that wherein~~ below each reel-carrier (1 and 2)
3 ~~assembly~~ a retractable ramp (48) is provided, with a stop (49) also retractable and in front of it,
4 which comprises a receiving area for ~~the~~ the unloading by freefall of ~~the~~ the mandrels (47) of the spent
5 reels, to situate said mandrels on a conveyor belt (52) for their removal.